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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,246	11/19/2001	Shigetoshi Tomio	1450.1013	8345

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EXAMINER

LAO, LUN YI

ART UNIT PAPER NUMBER

2673

DATE MAILED: 09/17/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/988,246

Applicant(s)

TOMIO ET AL.

Examiner

Lao Y Lun

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-13 is/are allowed.
- 6) ☒ Claim(s) 1-8, 14 and 15 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 –8 and 14-15 are rejected under 35 U.S.C. 102(e) as being anticipated by Takayama et al(6,249,087).

As to claims 1-8 and 14-15, Takayama et al teach a driving circuit for a flat display device(1) (see figure 1 and column 8, lines 20-25), applying a first voltage to a first electrode(X) of a capacitive load(Cxy) serving as a display element and applying a second voltage having a phase opposite to the first voltage to the first electrode(Y) of the capacitive load(see figures 1, 4, 20 and column 10, lines 8-45) comprising: a power supply circuit(85, 86) for generating the first voltage and the second voltage to be applied to the capacitive load(Cxy) using an externally supplied power supply(84); and a ramp waveform

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generation circuit(90) connected between a first signal line supplying the first voltage(0v) and a second signal line supplying the second voltage generated by said power supply circuit(PW1) so as to generate a ramp waveform to be applied to the capacitive load(see figures 1, 4, 20; column 8, lines 26-44; column 15, lines 43-68 and column 16, lines 1-10).

As to claim 2, Takayama et al teach the ramp waveform Generation Circuit(90) comprises a switching circuit(T1) and a resistor(R1), connected to the ground(see figure 20).

As to claim 3, Takayama et al teach the ramp waveform generation circuit(90) having a conversion circuit(DR1, C1) for converting a supplied a control signal for said switching circuit(T1) to a drive level(see figures 1 and 20).

As to claims 4 and 5, Takayama et al teach the ramp waveform generation circuit(90) having a potential adjusting circuit(R1, R2, D1, D2, D4, C3, T1-T2) for adjusting a final potential of the output ramp waveform(see figures 4 and 20).

As to claim 6, Takayama et al teach the ramp adjusting circuit (90) having a resistor(R2) inserted into a gate-charge loop(see figure 20).

As to claim 7, Takayama et al teach the ramp waveform to be Applied to the capacitive load changes from a positive potential to a negative potential(see figures 1, 4, 20).

As to claim 8, Takayama et al teach an AC-driven plasma display device(see figure 1 and column 8, lines 20-25).

As to claims 14-15, Takayama et al teach the ramp waveform changes in its voltage with time elapse(see figure 4).

***Allowable Subject Matter***

3. Claim 16 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

4. claims 9-13 are allowable.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ide et al(6,567,059) teach a plasma display driving circuit(3, 4) having switches capacitor, resistor and power supply.

Hashimoto et al(6,483,250) teach a plasma display having a ramp pulses(10a, 10b).

Rutherford(6,492,776) teach a plasma display having a driving circuit for generating a ramp signal.

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Weber(5,745,086) teaches a plasma display having a ramp generating circuit.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lun-yi, Lao whose telephone number is (703) 305-4873.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bipin Shalwala, can be reached at (703) 305-4938.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks  
Washington, D.C. 20231


or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

September 10, 2003

  
**Lun-yi Lao**  
**Primary Examiner**